tion and evaporation, the residue is dissolved in 5 ml 1% resorcinol solution and layered upon 5 ml concentrated sulfuric acid. A red color indicates the presence of lactic acid.

LACTIC ACID TEST (CRONER-CRONHEIM). Lactic acid solutions, after boiling with potassium hydroxide solution, give an odor of isonitrile on addition of a reagent consisting of 2 g potassium iodide and 1 g iodine in 50 ml water and 5 g aniline.

LACTIC ACID TEST (EEGRIWE). One drop of the solution tested is heated with 1 ml sulfuric acid for 2 minutes at 85°C, cooled to 25°C, and mixed with a little solid *p*-hydroxydiphenyl. A violet color on standing indicates the presence of lactic acid.

LACTIC ACID TEST (EKKERT). When a lactic acid solution is floated on a 1% solution of pyrocatechol in sulfuric acid, a blood-red ring test is obtained.

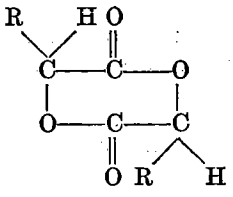
LACTIC ACID TEST (FLETCHER-HOPKINS). Heat a few drops of the sample for 1–2 minutes on the water bath with 5 ml sulfuric acid and 1 drop saturated cupric sulfate solution. Cool, add 2–3 drops of a solution of 10–20 drops thiophene in 10 ml alcohol and heat on the steam bath. A cherry-red color indicates lactic acid.

LACTIC ACID TEST (GERMUTH). To a solution of 0.05–5.0% lactic acid, or a weakly-acid (hydrochloric acid) lactate solution, add 0.5 ml 15% potassium thiocyanate solution for each 1% lactic acid present. An orange to red color develops, which is unchanged by heating.

LACTIC ACID TEST (REICHARD). In the presence of sulfuric acid, lactic acid gives color reactions with ammonium vanadate, titanic acid, tungstic acid, mercuric chloride, α-nitroso-β-naphthol, and α-naphthylamine.

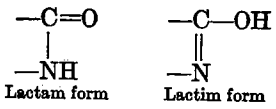
LACTIC ACID TEST (ROSENTHALER). With excess sodium hydroxide solution with **Ehrlich diazo reagent** (q.v.) a lactic acid solution slowly forms a violet color.

LACTIDE. One of a group of cyclic double esters of the α-hydroxy acids. The lactides have the general type-formula:



The two hydrogen atoms may be replaced by organic radicals, or the two radicals (R) in the above formula may be replaced by hydrogen atoms to give glycollide, the simplest lactide.

LACTIM. One of a group of cyclic compounds, isomeric with the **lactams,** of which they are the enol forms.

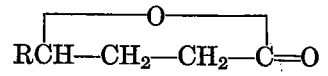


LACTONE. One of a group of cyclic inner esters of the hydroxy acids formed by the elimination of the elements of water from one molecule of the hydroxy acid. They are classified as α, β, γ, and δ according to the position relative to the carboxy carbon atom of the carbon atom connected to the hydroxy group.

Thus, the γ-hydroxy acid of type formula,

$$RCHOH—CH_2—CH_2—COOH$$

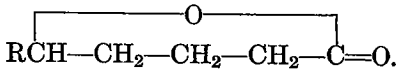
yields a γ-lactone,



and the δ-hydroxy acid of type formula

$$RCHOH—CH_2—CH_2—CH_2—COOH$$

yields a δ-lactone

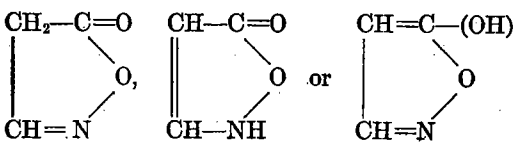


LACTONE RULES. See **Hudson lactone rules.**

LACTOSE. Carbohydrates.

LACTOSE TEST (RUBNER). Add lead acetate and ammonium hydroxide to the dilute solution tested until a permanent precipitate is formed, and boil for 20–25 seconds. Lactose gives a pale red color only after 2–3 minutes boiling.

LACTOXIME. (Lactozone. Isoxazolon.) One of a group of cyclic keto derivatives of the hypothetical dihydroisoxazole. They can be variously formulated,



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120 Alexander St., Princeton, New Jersey (*Principal office*)
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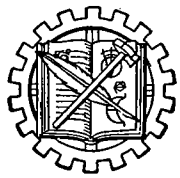

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